

REMARKS

Claims 1- 4, 8, 10 and 12 have been amended. Claims 6, 11 and 13-15 have been canceled with deleted text indicated. Claims 16 and 17 have been added.

In the Notice of Non-Compliant Amendment, the Examiner stated in the Amendment to the Claims that “deleted text is not indicated in compliance with 37 1.121(c)(2). In compliance, the text of the deleted claims 6, 11 and 13-15 have been added.

The Examiner objected to claims 1-15 because claims should be numbered consecutively with Arabic numbers. To correct, the word “claim” in front of every claim has been deleted.

The Examiner objected to claims 1-15, citing that the claims should begin with “I claim”. To correct, --I claim--, has been added at the beginning of the claims.

The Examiner objected to claims 3-4, because “claim1” should be divided. To correct, “claim 1” has been divided into --claim 1--.

The Examiner objected to claims 11 and 13-15, citing that “mounting the robotic manipulator in carriage from after the gripping step” is not provided in the specification. Claims 11 and 13-15 have been canceled.

The Examiner rejected claims under 35 U.S.C. 112 as being indefinite, citing the following:

2.1 In claim 1, *it is not understood what is meant by “image/sensor”*: To overcome the rejection, the word *image* has been deleted.

2.2. In claim 1, *said articulating belt does not have sufficient antecedent basis*: To overcome the rejection, “the articulating belt” has been replaced with conveying system defined in a previous phrase.

2.3. In claim 2, *the term “articulating belt” is not understood*: To overcome the rejection, the claim has been defined in claim 1 as a conveying system.

2.4. In claim 4, *“a correct height” is indefinite*: To overcome the rejection, the word “correct” has been deleted..

2.5. In claim 6, *it is not clear what “uniform and non-uniform and non-structured bulk” consist of*: To overcome the rejection, claim 6 has been canceled.

2.6. In claim 6, *it is not clear what “non-structured bulk” is meant*: To overcome the rejection, claim 6 has been canceled.

2.7. In claim 8, *the “image sensor” has insufficient antecedent basis*: To overcome, “the image sensor” has been amended as --sensor--which has been defined in claim 1.

2.8. In claim 10, *“said carriage” does not have sufficient antecedent basis*: To overcome the rejection, a phrase has added to define “carriage” in a previous phrase.

2.9. In claim 10, *the term “said lift mechanism” has insufficient antecedent basis*: To overcome the rejection, “said lift mechanism” has been deleted.

2.10. In claim 10, *it is not clear what” the step of processing said robotic manipulator, said lift mechanism and image sensor” entails*: To overcome the rejection, the step has been defined in detail.

2.11. In claim 11, *the term “said carriage” has insufficient antecedent basis*: To over come the rejection, claim 11 has been canceled.

2.12. In claim 11, *the term “ a correct height” is indefinite*: To overcome the rejection, claim 11 has been canceled.

2.13. In claim 12, *“the articulating belt” has insufficient antecedent basis*: To overcome the rejection, the “articulating belt” has been changed to articulating conveyor which has been defined in claim 10.

2.14. In claim 12, *“the takeaway conveyor” has insufficient antecedent basis*: To overcome the rejection, “the takeaway conveyor” has been replaced with fixed conveyor, which has been defined in claim 10.

The Examiner rejected claim 1-15 under 35 U.S.C. 102(b) as being anticipated by Maday (US 5,913,655 A). Maday disclosed an automatic destacking system for uniform packages as shown in Maday’s figures 1-6, items 18-32. The present invention relates to a unloading system that is much more capable in that it can handle a more random load of packages and the packages themselves can be more randomly shaped. The Maday system describes a “destacker” where individual packages are stacked uniformly, one on top of another. In the Maday system there is one package per layer. The present invention will unload a container full of packages where multiple packages can be on each layer. The sensor system and processor determine which package to unload next based in a predetermine strategy that includes position, tray height. The robot controller will dynamically determine each robot path to acquire each package and then control the movement of the robot during the actual acquisition and removal cycle. The Maday system is designed around a stackable container or package, where the packages are uniform; they are identical; and their geometry is known ahead of time. The Maday system can use fixed tooling to reach and acquire the package using predetermined interface points. The present invention does not have these limitations and is

applicable to different shape packages: uniform, non-uniform, non-structured and different combinations thereof. The present invention uses a sensor system to locate the packages and the flexibility of the robot and the end of arm tooling to reach packages anywhere in a physical volume with a variety of preprogrammed strategies. Therefore, Maday teaches away from the present invention. By limiting claim 1 to more than one packages of different shapes and orientations, it is believed that claim 1 is no longer anticipated by Maday. It follows that the dependent claims 2- 5 , 7-9, the method claims 10 and 12 which emulate claim 1, and the newly added claims 16-17 which depend on or emulate claim 1, are also no longer anticipated. Claims 6, 11 and 13-15 have been canceled.

In view of the above, it is submitted that claims 1- 5, 7-10, 12 and 16-17 are in condition for allowance. Reexamination of the objections and rejections is requested. Allowance of claims 1-5, 7-10, 12 and 16-17 at an early date is solicited.

Respectfully submitted,

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